

FPL Energy Seabrook Station P.O. Box 300 Seabrook, NH 03874 (603) 773-7000

February 24, 2009

SBK-L-09038 Docket No. 50-443

U. S. Nuclear Regulatory Commission Attention: Document Control Desk One White Flint North 11555 Rockville Pike Rockville, MD 20852

Seabrook Station

#### Supplement to Request for Relief from Inservice Inspection Requirements

In a letter dated September 30, 2008, FPL Energy Seabrook, LLC (FPL Energy Seabrook) requested approval for relief from inservice inspection requirements for the Seabrook pressurizer welded attachments (4 lugs) and their associated supports pursuant to 10 CFR 50.55a(a)(3)(ii).

In accordance with the ASME Boiler and Pressure Vessel Code (Code) Section XI, 1995 Edition through the 1996 Addenda, the Seabrook pressurizer vessel (PZR) welded attachments and their associated supports require examination during the current 10-year interval. FPL Energy Seabrook requested relief from the examination requirements for the PZR welded attachments and their associated supports due to limited normal access and emergency egress concerns.

In a conference call of January 7, 2009, between the NRC and FPL Energy Seabrook, it was determined that a supplement to the September 30, 2008 request would be required to change the basis for the request pursuant to 10 CFR 50.55a(g)(5)(iii) and to provide additional supporting information. Due to proximity of the pressurizer enclosure, structural steel, piping and ductwork interferences, surface examination of the subject welds is impractical. To achieve access to the lugs and supports, a complete redesign of the pressurizer cubicle and the surrounding floor at elevation 25' would be required. The implementation of this redesign would require substantial engineering and construction resources as well as significant dose to plant personnel without a compensating increase in quality and safety. Therefore, FPL Energy Seabrook has no plans to make such modifications at this time. Also, there are no similar components that have similar

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operating conditions located at Seabrook Station. The supplemental request is provided in the Attachment to this letter.

FPL Energy Seabrook requests review and approval of this proposal to support the Seabrook Unit 1 refueling outage in the fall of 2009. Similar alternatives have been submitted for NRC review and approval and are referenced in the attached request.

If you have any questions regarding this submittal, please contact Mr. Michael O'Keefe, Licensing Manager, at (603) 773-7745.

Sincerely,

FPL Energy Seabrook, LLC

Gene St. Pierre Site Vice President

cc: S. J. Collins, NRC Region I Administrator D. L. Egan, NRC Project Manager W. J. Raymond, NRC Resident Inspector

## Attachment to SBK-L-09038

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#### ATTACHMENT

#### 10 CFR 50.55a REQUEST Relief Request in Accordance with CFR 50.55a(g)(5)(iii) 2IR-12, Revision 1

#### SECOND INTERVAL ISI RELIEF FROM INSERVICE INSPECTION REQUIREMENTS

#### 1.0 ASME Code Components Affected

Code class:	1
System:	RC
Examination Categories:	B-K
	F-A
Item No(s). :	B10.10, Pressure Vessel, Welded Attachments
	F1.40, Supports other than Piping
ISI Component ID:	RC E-10 A-LUG and associated support
	RC E-10 B-LUG and associated support
	RC E-10 C-LUG and associated support
	RC E-10 D-LUG and associated support

#### 2.0 Applicable Code Edition and Addenda

FPL Energy Seabrook, LLC (FPL Energy Seabrook) is currently in the 2nd 10-year Inservice Inspection (ISI) interval. The American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code) of record for the current 10-year ISI interval is Section XI, 1995 Edition, including Addenda through 1996.

3.0 Applicable Code Requirement

ASME Section XI, 1995 Edition, including Addenda through 1996, Table IWB-2500-1, Category B-K, Welded Attachments for Vessels, Piping, Pumps and Valves requires a surface examination of essentially 100% of the weld length.

ASME Section XI, 1995 Edition, including Addenda through 1996, Table IWF-2500-1, Category F-A, Supports, requires a VT-3 visual examination of mechanical connections back to the building structure.

### 4.0 Impracticality of Compliance

Pursuant to 10CRF50.55a (g)(5)(iii), relief is requested from performing the required surface examination on four pressurizer welded attachments and the required visual examination on their associated supports on the basis that the Code requirements are impractical. A 15" thick concrete shield wall weighing approximately 85,000 pounds surrounds the Seabrook pressurizer approximately three

quarters of the way around. The clearance between the shield wall and the pressurizer vessel with insulation is approximately 12", with less clearance at the top cubicle opening due to structural steel. The north end of the cubicle has greater vessel to shield wall clearance, however, that is where safety valve and spray piping run. Ladders and platforms do not exist to make the examination area accessible nor can ladders be placed in the area due to restrictions from piping, conduit, ventilation and other attachments.

The pressurizer lugs are located on the pressurizer at elevation 23'-6". Potential access is gained from either above the lugs or from below. Potential access from above is gained by climbing a ladder on the outside of the shield wall at elevation 25' and entering the cubicle at the top of the pressurizer at elevation 50'. At the top of the pressurizer, safety valve structural steel is used for footing as no platform exists in the cubicle. Access from the top must be made from the north side of the cubicle where the pressurizer to shield wall distance is greatest (see Section A-A of Figure 2). From this location it is approximately 26'-6" to the lug elevation. There is no installed ladder within the pressurizer cubicle to allow for normal access and egress to the lug elevation from the top (see Figure 2). The elevation distance, amount of obstructions, attachments, and insulation renders remote visual equipment unusable. From below, lug access is not achievable due to a permanent ventilation duct that encircles the pressurizer (See Figure 1).

#### 5.0 Burden caused by Compliance

Current access to the pressurizer lugs and supports does not allow for examination of the required weld surfaces and supports. To achieve access, a complete redesign of the pressurizer cubicle and the surrounding floor at elevation 25' would be required. The implementation of this redesign would require substantial engineering and construction resources as well as significant dose to plant personnel without a compensating increase in quality and safety.

#### 6.0 Proposed Alternative and Basis for Use

#### 1. <u>B-K Items</u>

a. These welded attachments are subject to VT-2 visual examination as part of the system leakage test on the Pressurizer vessel conducted each refueling outage as specified in Table IWB-2500-1, Examination Category B-P of the 1995 Edition through the 1996 Addenda of ASME Section XI.

It is FPL Energy Seabrook's position, based on acceptable results of VT-2 visual examinations performed during the Class 1 system leakage test, that there is reasonable assurance of continued structural integrity of the subject attachments and an acceptable level of quality and safety is maintained. During normal operation, these welded attachments are not under load, but serve to limit radial movement during a seismic event.

#### 2. <u>F-A Items</u>

a. No alternative is proposed in lieu of the required VT-3 examination for Code Category F-A, Item F1.40 components referenced in this relief. Although no other similar type supports exist in Code item F1.40, there have been no visual examination failures with supports within Code item F1.40.

### 7.0 Duration of Proposed Alternative

The alternative requirements of this request will be applied for the duration of up to and including the last outage of the current 2nd 10-year ISI interval.

### 8.0 Precedents

- A similar first interval relief request, IR-12 Rev. 0 was approved for Seabrook Station by the NRC under TAC No. MB2561.
- A second interval relief request, 2IR-12 Rev. 0 was approved for Seabrook Station by the NRC for the B-K components listed in this relief request under TAC No. MA9902.

#### 9.0 References

1. ASME Code, Section XI, 1995 Edition, including Addenda through 1996.





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# SECTION A-A

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# SECTION B-B

(Elv. 32')



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# SECTION C-C

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